

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003922**Date Inspected:** 11-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Liu Wei Wei and Zhao Chen Sun			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006			Component:	OBG and SAS Tower Fabrication	

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 2: 114M Tower Mock-ups, Plate Cutting, Rolling

This QA Inspector observed 4-38mm thick plate marked SA399, SA362, P1504 and P1410 for tower diaphragm plate being set-up at the table for beveling/machining. Rolling of 1-70mm thick plate marked P141 also seen in progress. Drilling of 55-30mm diameter bolt holes on 75mm thick stiffener/connector plate marked P709S and P686S in progress. No Caltrans job at the cutting table.

Bay 3: OBG side/bottom/edge panel

This QA Inspector also randomly observed ZPMC welder operator ID Number 051246, and ID #048810, utilizing the FCAW Process in the 2F (Horizontal Fillet) Position with gantry(#2) mounted welding apparatus and ZPMC WPS WPS-B-T-2132-3, to weld wt(W21x57) rib stiffener to side plate SP098-001-weld joints 019/020, and 027/028 respectively. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder Ji Jinggang ID Number 205771, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 3G (Vertical Groove)

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Position with ZPMC WPS WPS-B-T-2233-B -U2-F, to weld fill pass on flange (w21X57) splice butt joint SP153-001-039/040. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

This QA also observed ZPMC welders ID #053609 and ID #202842 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 2F (Horizontal fillet) Position with ZPMC WPS WPS-B-T-2132-3, to weld fillet pass on stiffener to web plate of edge plate EP034-001-014 and EP034-001-010.

Tack/fit-up of 6-WT (W21x57) rib stiffener to various bottom plates BP114-001-009/010, 013/014, 017/018 and BP063-001-007~014 using THJ506Fe-1 was also noted.

Bay 4: Tower Diaphragm

The QA Inspector randomly observed ZPMC welder ID Number 049084, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-U3c-S-2, to weld the CJP fill pass on plate splice butt joint of tower diaphragm plate A5 + P433. QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

Tack/fit-up of 38mm plate splice butt joint ESD1-SA411 weld joints 4 and 6 using 4.0mm diameter, TL508 electrode following WPS-B-P-2311-P3 and tack/fit-up of 40mm web plate to (bottom) tower double diaphragm NSD1-SA333B/B weld joints 8 and 11 using Excalibur E9018M H4R electrode and following WPS-B-T-3312-Tc-P5 this QA observed.

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Duan Xiu Zhi ID Number 050502, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the CJP fill pass on plate splice butt joint of floor beam sub-assembly FB009-014-023. QA Inspector randomly observed ZPMC CWI Liu Wei Wei monitoring weld parameters.

This QA randomly observed ZPMC welder Chen Chuanzong ID Number 04482, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-Tc-U2-F-1 to weld CJP fill pass on plate splice butt joint of floor beam FB016-022-023. The QA Inspector randomly observed ZPMC CWI Liu Wei Wei monitoring preheat and weld parameters.

Bay 8: Tower Diaphragm

This QA observed ZPMC welder, ID #066734 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand K-71TSR, semi automatic with ZPMC WPS WPS-B-T-4132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange WSD1-SA226-2. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Tack/fit-up of 40mm web plate to (bottom) tower double diaphragm NSD1-SA334B/B weld joints 5 and 6 using Excalibur E9018M H4R electrode and following WPS-B-T-3312-Tc-P5 this QA observed.

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Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito
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Quality Assurance Inspector

Reviewed By:	Cuellar, Robert
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QA Reviewer
